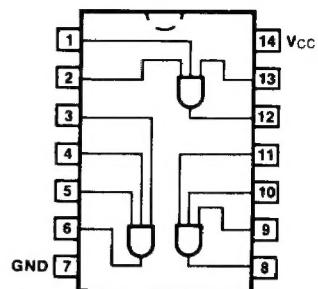
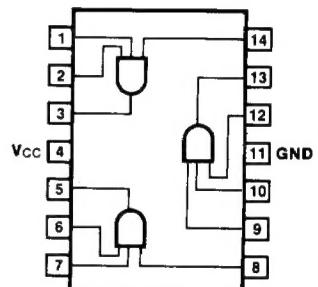


5411

- 54/7411 01105 S**  
**54H/74H11 011032**  
**54S/74S11 011033**  
**54LS/74LS11 011031**

**TRIPLE 3-INPUT AND GATE****CONNECTION DIAGRAMS  
PINOUT A****PINOUT B****ORDERING CODE:** See Section 9

| PKGS            | PIN OUT | COMMERCIAL GRADE  | MILITARY GRADE  | PKG TYPE |
|-----------------|---------|---|---|----------|
|                 |         | V <sub>CC</sub> = +5.0 V ±5%, T <sub>A</sub> = 0°C to +70°C | V <sub>CC</sub> = +5.0 V ±10%, T <sub>A</sub> = -55°C to +125°C |          |
| Plastic DIP (P) | A       | 7411PC, 74H11PC<br>74S11PC, 74LS11PC                        |   | 9A       |
| Ceramic DIP (D) | A       | 7411DC, 74H11DC<br>74S11DC, 74LS11DC                        | 5411DM, 54H11DM<br>54S11DM, 54LS11DM                            | 6A       |
| Flatpak (F)     | A       | 74S11FC, 74LS11FC   | 54S11FM, 54LS11FM   | 3I       |
|                 | B       | 7411FC, 74H11FC   | 5411FM, 54H11FM   |          |

**INPUT LOADING/FAN-OUT:** See Section 3 for U.L. definitions

| PINS           | 54/74 (U.L.) HIGH/LOW | 54/74H (U.L.) HIGH/LOW | 54/74S (U.L.) HIGH/LOW | 54/74LS (U.L.) HIGH/LOW     |
|----------------|-----------------------|------------------------|------------------------|-----------------------------|
| Inputs Outputs | 1.0/1.0<br>20/10      | 1.25/1.25<br>12.5/12.5 | 1.25/1.25<br>25/12.5   | 0.5/0.25<br>10/5.0<br>(2.5) |

**DC AND AC CHARACTERISTICS:** See Section 3\*

| SYMBOL           | PARAMETER            | 54/74 |     | 54/74H |     | 54/74S |     | 54/74LS |                | UNITS | CONDITIONS             |                       |
|------------------|----------------------|-------|-----|--------|-----|--------|-----|---------|----------------|-------|------------------------|-----------------------|
|                  |                      | Min   | Max | Min    | Max | Min    | Max | Min     | Max            |       | V <sub>IN</sub> = Open | V <sub>CC</sub> = Max |
| I <sub>CC</sub>  | Power Supply Current | 15    | 30  | 24     | 36  | 24     | 36  | 24      | 36             | mA    | V <sub>IN</sub> = Gnd  |                       |
| t <sub>PLH</sub> | Propagation Delay    | 27    | 12  | 2.5    | 7.0 | 13     | 11  | ns      | Figs. 3-1, 3-5 |       |                        |                       |
| t <sub>PHL</sub> |                      | 19    | 12  | 2.5    | 7.5 |        |     |         |                |       |                        |                       |

\*DC limits apply over operating temperature range; AC limits apply at T<sub>A</sub> = +25°C and V<sub>CC</sub> = +5.0 V.